



Government of India
Ministry of Science & Technology
Department of Biotechnology



ONE DAY ONE GENOME



Isolated from a chronic wound

Staphylococcus saprophyticus

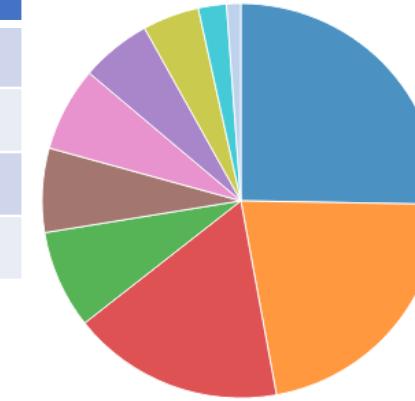
An emerging wound pathogen with biofilm and resistance traits

Quality of Genome Assembly and Annotation:Results from indigenously developed **BHARAT** analysis pipeline: (**Bacterial Hybrid genome Assembly and Rapid Annotation Toolset**)**Table 1: Assembly Details**

Contigs	471
GC Content	32.65
Contig L50	109
Genome length	977,255 bp
Contig N50	2,342

Table 2: Annotated Genome Features

CDS	1,454
tRNA	12
Repeat Regions	0
rRNA	2

**Subsystem Analysis**

Subsystem (Subsystems, Genes)

METABOLISM	(22, 54)
STRESS RESPONSE, DEFENSE, VIRULENCE	(19, 46)
PROTEIN PROCESSING	(15, 21)
ENERGY	(7, 29)
CELLULAR PROCESSES	(6, 17)
DNA PROCESSING	(6, 13)
MEMBRANE TRANSPORT	(5, 20)
RNA PROCESSING	(4, 8)
MISCELLANEOUS	(2, 4)
REGULATION AND CELL SIGNALING	(1, 1)

Table 3: Antimicrobial Resistance Genes

AMR Mechanism	Genes
Antibiotic inactivation enzyme	FosB
Antibiotic resistance gene cluster,cassette,or operon	TcaR
Antibiotic target in susceptible species	Alr, Ddl, EF-G, folA, Dfr, folP, gyrA, gyrB, inhA, fabI, rpoB, rpoC, S12p
Protein altering cell wall charge conferring antibiotic resistance	GdpD
Efflux pump conferring antibiotic resistance	NorA, YkkCD
Regulator modulating expression of antibiotic resistance genes	LiaF, LiaR, LiaS

Genome Assembly